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Consumption and Saving of the Middle Class in Malaysia

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Abstract

This paper explores the behavior of consumption and saving of the middle class households in Malaysia. The analysis is based on the data sets contained in the three reports of the Household Expenditure Survey (HES): HES 1998/1999, HES 2004/2005, and HES 2009/2010. Using the detailed household expenditure data, the consumption data are derived by subtracting the expenditures on nondurable goods, education, health, insurance and mortgages. Using the household income data, the household saving data are residually derived. By defining the middle class as the group of households whose income falls within the ± 25% of the median household income, we find that each of the lower, middle, and upper classes constitutes, respectively, about 35%, 25%, and 38% of all households in the sample. When the pattern of consumption and saving of all income classes is examined, we find that the consumption share of income is regressive while the saving share of income is progressive. When consumption is broken down into several sub-categories, we obtain the following main results. First, four categories occupy the high rankings for all income classes: food and non-alcoholic beverages, housing and utility, restaurants and hotels, and transportation. Second, the relative rankings of these four categories differ between the upper class and other income classes. Third, the consumption share of income is regressive for food and non-alcoholic beverages, housing and utility, and restaurants and hotels.

Keywords: middle class; consumption; saving; expenditure; household.

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1. Introduction

It has been argued that the presence of a strong middle class group in a society is essential for promoting economic growth of a nation. This is because a society featuring a large proportion of the middle class is the one characterized by a relatively equal income distribution. The link between income distribution and economic growth has been proposed in a number of ways in the growth literature. To cite a few, income inequality imposes a financial constraint on the poor to acquire education (Galor and Zeira, 1993), motivates the average citizens to fight for more extensive redistributive policies (Alesina and Rodrik, 1994), and encourages the disadvantaged group to create social tension in the society (Alesina and Perotti, 1996). In all of these models, a common theme is that income inequality has an adverse effect on economic growth; hence, the need for a strong (or a large share of the) middle class in a society.

The call for a strong middle class has provided an impetus for scholars to study the pattern and trend of the middle class in selected countries in the world. Among them, the prominent ones are Birdsall, Graham and Pettinato (2000), Easterly (2001), Banerjee and Duflo (2008), Ravallion (2010), Birdsall (2010), and Birdsall (2012). A cursory look at these studies reveals that there is no single, universally accepted definition of the middle class. Birdsall et al. (2000) defined the middle class as the group of households whose income falls within the □ 25% of the median household income per capita. Easterly (2001) defined the middle class as the group of households whose income per capita falls between 20th and 80th percentile of income distribution. Banerjee and Duflo (2008) defined the middle class in two alternative ways: the group of households whose daily consumption per capita in 2005 PPP falls between a) $2 and $4, and b) $6 and $10. Ravallion (2010) defined the middle class as the group of households whose daily income per capita in 2005 PPP falls between $2 and $13. Birdsall (2010) defined the middle class as the group of households whose daily income per capita in 2005 PPP falls between $10 and the 95th percentile of income distribution. Birdsall (2012) defined the middle class as the group of households whose income per capita in 2005 PPP falls between $10 and $50.

Of these, the first two definitions are based on the relative concept while the remaining ones are based on the absolute concept of the middle class. However, the first two definitions differ from one another in terms of whether or not the share of the middle class in the population is fixed over time. (The share is fixed in the second definition but not necessarily in the first.) When it comes to the absolute concept, scholars disagree on the appropriate monetary interval. Banerjee and Duflo (2008) provided the two definitions based on the idea that both of them coincide with the previous definitions. Ravallion (2010) suggested the lower bound of $2 based on the idea that the figure is the cut-off point for poverty in developing countries, and the upper bound of $13 based on the idea that the figure is the cut-off point for poverty in the United States. Birdsall (2010) suggested the lower bound of $10 based on the observation that a middle class who earns between $2 and $9 is likely to be vulnerable while the upper bound is arbitrarily set. Birdsall (2012) suggested the upper bound of $50 based on the observation that the figure should be the cut-off point between an upper class and a middle class.

It seems that the search for an appropriate definition of the middle class has not yielded a universally accepted definition. Although there is an increasing tendency toward the absolute concept, it remains to decide the monetary interval which captures the idea of a middle class. Given this lack of consensus and in the interest of simplicity, this paper opts for the definition suggested by Birdsall et al. (2000). In this paper, our interest is to characterize the patterns of consumption and saving of the middle class in Malaysia. We start by measuring the size of the middle class and proceed by examining the consumption and saving patterns of the middle class vis-à-vis those of the upper and lower classes.

2. The Description of Data

In measuring the size and pattern of the middle-class in Malaysia, we employ three sets of data published by the Department of Statistics, Malaysia. The data sets are obtained from three consecutive reports of the Household Expenditure Survey (HES): 1998/1999, 2004/2005, and 2009/2010. It should be noted that the sample size varies

across the surveys, ranging from 8,000- to 19,000-odd observations. For each report, the data are made available to the researchers for merely one-third of the sample size. Consequently, the available sample size is 2,761 for HES 1998/1999, 4,225 for HES 2004/2005, and 6,495 for HES 2009/2010.

In each survey, the household data are divided into three major categories: demographic characteristics, income, and expenditures. The demographic data are divided into household- and individual-level data. At the household level, the available data include household size, residential type, number of income earners, number of children, and number of dependents. At the individual level, the available data include age, gender, ethnicity, education level, and occupation type of the head and members of the household. The income data are divided into several categories of earnings such as wage income, self-employed income, rental income, and property income. The expenditure data are divided into several major categories (such as food and non-alcoholic beverages, alcoholic beverages and tobacco, clothing and shoes, and transportation) which, in turn, are divided into several subcategories, up to six digits.

It should be noted that while there are nine major categories of expenditure in the first survey, there are 12 in the other two surveys. This discrepancy reflects the fact that certain expenditure items which belong to one category in the first survey are decomposed into two categories in the other two surveys. For comparability, the nine major categories in the first survey are carefully (and painfully) disaggregated in order to match the 12 major expenditure categories in the other two surveys.

3. The Size of the Middle Class

Given the definition suggested by Birdsall et al. (2000), we measure the size of the middle class for each of the three reports. As shown in Table 1, the middle class constitutes an average of slightly more than 25% of the households, suggesting that income inequality is very high (since the remaining 75% of the households belong to the lower and upper classes). In addition, the middle class share exhibits stability throughout the 12-year period of analysis, suggesting that there is little change in the socioeconomic mobility in the society; if anything, the share is shrinking over the period, indicating a mildly worsening situation.

Table 1: The size of the middle class

	HES 1998/1999	HES 2004/2005	HES 2009/2010
Median Income (RM)	1852	2120	2762
Income Range (RM)	1389 – 2310	1590 – 2650	2072 – 3453
Middle Class Share (%)	27.5	26.4	25.9

In order to see how the middle class fares with other income classes, we measure the size of these classes too. As shown in Table 2, each of the upper and lower classes constitutes between 35% and 40% of the households, suggesting that there is a balanced distribution of richer and poorer households. As was the case with the middle class, the share of upper and lower classes also exhibits stability over the period, reinforcing the premise that there is lack of socioeconomic mobility in the society.

Table 2: The size of the upper, middle and lower classes

	HES 1998/1999	HES 2004/2005	HES 2009/2010
Upper Class			
Income Range (RM)	2316 – 60112	2651 – 63843	3454 – 77041
Upper Class Share (%)	37.9	37.9	38.7
Middle Class			
Income Range (RM)	1389 – 2310	1590 – 2650	2072 – 3453
Middle Class Share (%)	27.5	26.4	25.9
Lower Class			
Income Range (RM)	95 – 1388	155 – 1589	68 – 2070
Lower Class Share (%)	34.6	35.7	35.4

4. The Pattern of Consumption and Saving of the Middle Class

Next, we examine whether the pattern of household expenditure varies across different income classes. As shown in Table 3, the expenditure share of income is regressive (i.e. in terms of share, the lower class spends more on average than the middle and upper classes). For the upper class, the share ranges from 49% to 57%. For the middle class, the share ranges from 57% to 79%. For the lower class, the share ranges from 65% to 87%. Furthermore, the expenditure share exhibits an inverse U-shaped trend for each income class, indicating a larger spending tendency during the middle years. If household saving is crudely defined as the difference between household income and household expenditure, then the opposite trend and pattern are observed: the saving share is progressive (i.e. in terms of share, the upper class saves more than the middle and lower classes) and the trend is U-shaped.

Table 3: The total expenditure and saving shares of income

	HES 1998/1999	HES 2004/2005	HES 2009/2010	Average
Upper Class				
Expenditure Share (%)	48.53	56.76	50.89	52.06
Saving Share (%)	51.47	43.24	49.11	47.94
Middle Class				
Expenditure Share (%)	57.49	78.66	68.41	68.19
Saving Share (%)	42.51	21.34	31.59	31.81
Lower Class				
Expenditure Share (%)	65.30	86.95	79.57	77.27
Saving Share (%)	34.70	13.05	20.43	22.73

Note: Saving is defined as the difference between income and expenditures.

The household expenditure consists of all kinds of spending made by households, some of which are usually regarded as saving or investment such as mortgage payments and expenditures on durable goods, education, health, and insurance. If these expenditures are subtracted from the total household expenditure, we obtain household consumption. It should be noted that the pattern of household consumption resembles that of household expenditure; i.e. the consumption share of income is regressive (see Table 4). For the upper class, the share ranges from 28% to 39%; for the middle class, the share ranges from 39% to 58%; and for the lower class, the share ranges from 44% to 66%. As was the case with the expenditure share, the consumptions share exhibits an inverse U-shaped trend for each income class. Now if household saving is defined as the difference between household income and household consumption, then the opposite pattern and trend are observed: the saving share is progressive and the trend is U-shaped. It should be noted that the pattern of household expenditure, consumption, and saving with regard to different income classes are consistent with our a priori expectations (the poorer individuals spend more, the richer individuals save more).

Table 4: The consumption and saving shares of income

	HES 1998/1999	HES 2004/2005	HES 2009/2010	Average
Upper Class				
Consumption Share (%)	27.55	39.39	35.20	34.05
Saving Share (%)	72.45	60.61	64.80	65.95
Middle Class				
Consumption Share (%)	38.77	57.54	51.05	49.12
Saving Share (%)	61.23	42.46	48.95	50.88
Lower Class				
Consumption Share (%)	44.07	65.63	59.98	56.56
Saving Share (%)	55.93	34.37	40.02	43.44

Note: Saving is defined as the difference between income and consumption.

Since the pattern and trend of household expenditure mimic those of household consumption, it could be argued that household consumption plays a significant role in driving the variations in household expenditure across income classes. It is imperative then that we investigate the sources of consumption components which drive such

variations. Of the 12 major categories of household expenditure, two of them do not fall under consumption (i.e. health and education expenses) so that they need to be removed. Within the remaining 10 categories of expenditures, some sub-categories also do not fall under consumption (i.e. the purchase of durables, mortgage payments, and insurance expenses). Excluding these items, we obtain the consumption share of income for the 10 categories of consumption.

Of the 10 consumption categories, four of them occupy the high rankings for all income classes: Food & Non-alcoholic Beverages (F&B), Housing & Utility (H&U), Transportation, and Restaurants & Hotels (R&H) (see Table 5). However, the position of rankings differs across the income classes. For the upper class, F&B ranks the first followed by R&H, Transportation, and H&U. For the middle and lower classes, F&B ranks the first followed by H&U, R&H, and Transportation. Regardless of their relative rankings, it should be noted that the consumption share of income is regressive for three of them: F&B, H&U, and R&H. It is these components which drive the variations in household expenditure across income classes. Of the three, the striking one is F&B; on average, the share varies from about 9% (for the upper class) to 24% (for the lower class). In terms of trend, it seems that F&B and H&U exhibit some stability over time for all income classes whereas Transportation and H&R exhibit some fluctuations over time.

Table 5: The consumption components shares of income

	HES 1998/1999	HES 2004/2005	HES 2009/2010	Average
Upper Class				
Food & Non-alcoholic Beverages	9.06	9.61	8.47	9.05
Alcoholic Beverages & Tobacco	0.25	0.93	0.90	0.69
Clothing & Shoes	1.83	1.84	1.55	1.74
Housing & Utility	3.85	5.06	4.33	4.41
Furnishing & Maintenance	1.48	1.37	1.16	1.34
Transportation	2.82	6.97	6.16	5.32
Communication	2.19	2.95	2.84	2.66
Recreation & Culture	1.23	2.11	1.91	1.75
Restaurants & Hotels	4.03	6.48	5.83	5.45
Miscellaneous G&S	0.80	2.07	2.05	1.64
Middle Class				
Food & Non-alcoholic Beverages	16.09	18.64	16.69	17.14
Alcoholic Beverages & Tobacco	0.42	1.79	1.62	1.28
Clothing & Shoes	3.08	2.93	2.42	2.81
Housing & Utility	6.83	7.79	6.74	7.12
Furnishing & Maintenance	1.08	1.20	1.19	1.16
Transportation	2.89	8.56	7.70	6.38
Communication	2.49	3.38	3.33	3.07
Recreation & Culture	1.18	2.03	2.04	1.75
Restaurants & Hotels	4.05	8.76	7.30	6.70
Miscellaneous G&S	0.67	2.46	2.03	1.72
Lower Class				
Food & Non-alcoholic Beverages	21.35	26.31	23.98	23.88
Alcoholic Beverages & Tobacco	0.63	2.11	1.65	1.46
Clothing & Shoes	3.57	3.32	2.88	3.26
Housing & Utility	7.59	9.30	8.93	8.61
Furnishing & Maintenance	1.15	1.19	1.19	1.18
Transportation	2.60	6.97	6.91	5.49
Communication	1.78	2.98	2.94	2.57
Recreation & Culture	0.99	1.17	1.52	1.23
Restaurants & Hotels	3.81	9.78	7.76	7.12
Miscellaneous G&S	0.59	2.50	2.21	1.77

The premise that household consumption plays a significant role in driving the variations in household expenditure implies that other expenditures do not. For completeness, however, let us examine the share of income for these other expenditures. Of the five expenditure categories, two of them occupy the high rankings for all income

classes: the purchase of durables and mortgage payments (see Table 6). However, the position of rankings differs across the income classes. For the upper class, the purchase of durables ranks the first followed by mortgage payments. For the middle and lower classes, it is the other way around. It should be noted that the durable share of income is progressive while the mortgage share of income is regressive. In terms of trend, it appears that durables exhibit some fluctuations while mortgages exhibit some stability over time for all income classes. Finally, it should be noted that the share of income for the remaining expenditures is progressive and negligible; on average, their share of income ranges from 2.4% to 3.2%.

Table 6: The other expenditure shares of income

	HES 1998/1999	HES 2004/2005	HES 2009/2010	Average
Upper Class				
Durable Share (%)	9.78	7.37	6.56	7.90
Mortgage Share (%)	7.80	6.28	6.57	6.88
Education Share (%)	1.20	1.25	0.85	1.10
Health Share (%)	1.12	0.89	0.77	0.93
Insurance Share (%)	1.08	1.58	0.95	1.20
Middle Class				
Durable Share (%)	7.21	9.45	5.94	7.53
Mortgage Share (%)	8.67	8.21	8.90	8.59
Education Share (%)	0.94	1.14	0.77	0.95
Health Share (%)	0.98	0.98	0.90	0.95
Insurance Share (%)	0.92	1.34	0.85	1.04
Lower Class				
Durable Share (%)	7.07	7.12	5.41	6.53
Mortgage Share (%)	11.71	11.49	12.11	11.77
Education Share (%)	0.94	0.99	0.62	0.85
Health Share (%)	0.96	0.91	0.89	0.92
Insurance Share (%)	0.55	0.81	0.56	0.64

5. Conclusion

In this paper, we seek to characterize the behavior of consumption and saving of the middle class vis-à-vis the upper and lower classes in Malaysia. Our analysis is based on the data sets from three consecutive reports of the Household Expenditure Survey: 1998/1999, 2004/2005, and 2009/2010. We begin by measuring the size of the middle class. We find that the middle class constitutes a quite small share of all households in the sample, which is slightly over 25%. In contrast, the upper and lower classes constitute about 38% and 35% of all households in the sample, respectively. Inasmuch as income inequality is associated with poor economic growth, these findings call for policies to expand the size of the middle class in Malaysia.

We proceed by examining the pattern of consumption and saving across all of the three income classes. We find that the consumption share of income is regressive (i.e. in terms of share, the lower class consumes more than the middle class which, in turn, consumes more than the upper class) and the saving share of income is progressive (i.e. in terms of share, the upper class saves more than the middle which, in turn, saves more than the lower class), much to our a priori expectations. When consumption is broken down into 10 categories, we obtain the following results. First, four categories occupy the high rankings for all income classes: food and non-alcoholic beverages, housing and utility, restaurants and hotels, and transportation. Second, the relative rankings of these four categories differ between the upper class and other income classes. Third, the consumption share of income is regressive for food and non-alcoholic beverages, housing and utility, and restaurants and hotels.

Turning to other expenditures that are usually considered as either saving or investment, we find the following results. First, the purchase of durables and mortgage payments occupy the high rankings for all income classes. Second, the relative rankings of these two categories differ between the upper class and other income classes. Third, the expenditure share of income is progressive for durables but regressive for mortgages.

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References

Alesina, A. and Perotti, R. 1996. Income distribution, political instability, and investment. European Economic Review, 40: 1203-1228.

Alesina, A. and Rodrik, D. 1994. Distributive politics and economic growth. Quarterly Journal of Economics 109(2): 465-490.

Banerjee, A. and Duflo, E. 2008. What is middle class about the middle classes around the world? Journal of Economic Perspectives 22(2): 3-28.

Birdsall, N. 2010. The (Indispensable) Middle class in developing countries. Working Paper No. 207, Center for Global Development.

Birdsall, N. 2012. A note on the middle class in Latin America. Working Paper No. 303, Center for Global Development.

Birdsall, N., Graham, C. and Pettinato, S. 2000. Stuck in the tunnel: Is globalization muddling the middle class? The Brookings Institution Center on Social and Economic Dynamics, Working Paper No. 14.

Easterly, W. 2001. The middle class consensus and economic development. Journal of Economic Growth 6(4): 317-335.

Galor, O. and Zeira, J. 1993. Income distribution and macroeconomics. Review of Economic Studies 60: 35-52.

Milanovic, B. and Yitzhaki, S. 2002. Decomposing world income distribution: Does the world have a middle class? Review of Income and Wealth 48(2): 155-78.

Ravallion, M. 2010. The developing world's bulging (but vulnerable) middle class. World Development 38(4): 445-454.